

National Type Evaluation Program
Certificate of Conformance
for Weighing and Measuring Devices

For:

Jeweler's Balance/Postal
and Grain Test Scales
Digital Electronic
Model: PJ/CJ Series*
 n_{\max} : 3,100 - 41,000
Capacity: See page 2

Accuracy Class: II or III

Submitted by:

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Standard Features and Options

*The specific models are listed on pages 2 and 3.

Semi-automatic zero
Semi-automatic tare

Temperature Range: 10 to 30 °C (50 to 86 °F)

This device was evaluated under the National Type Evaluation Program (NTEP) and was found to comply with the applicable technical requirements of Handbook 44, "Specifications, Tolerances, and Other Technical Requirements for Weighing and Measuring Devices." Evaluation results and device characteristics necessary for inspection and use in commerce are on the following pages.

Effective Date: January 21, 1994

Chief, Office of Weights and Measures
Issue Date: January 25, 1994

Note: The National Institute of Standards and Technology does not "approve", "recommend", or "endorse" any proprietary product or material, either as a single item or as a class or group. Results shall not be used in advertising or sales promotion to indicate explicit or implicit endorsement of the product or material by the Institute. (See NTEP Policy and Procedures).

Mettler Instrument Corporation
Jeweler's Balance/Postal/Grain Test Scales
Model: PJ/CJ Series

Application: May be used as a Jeweler's Balance or a Precious Stone Balance (where the scale division is appropriate for the application), Postal Service Scale, or Moisture Scale for the USDA Federal Grain Inspection Service as identified by model number.

Models: The models covered by this Certificate are listed below.

| | | Capacities and Primary Weight Units | | | Capacities and Secondary Weight Units | | | USDA/FGIS Grain Test Scales ¹ |
|-------------------------|-------|----------------------------------------|------|-------|------------------------------------------|---|-----|------------------------------------------------|
| Model | Class | Capacity | e | d | Capacity | e | d | Category |
| PJ15/49 | II | 15000 g | 1 | 1 | | | | |
| CJ150/49 | II | 150 ct | 0.01 | 0.001 | | | | |
| PJ6/49 | II | 6000 g | 1 | 1 | | | | |
| PJ12/49 | II | 12000 g | 1 | 0.1 | | | | |
| PJ300/49 ¹ | II | 310 g | 0.01 | 0.001 | | | | Precision |
| PJ300/49 ¹ | III | 310 g | | 0.1 | | | | Moisture |
| PJ300/49 ¹ | III | 310 g | | 0.5 | | | | General |
| PJ360/49 ^{1,2} | II | 0-60 g | 0.01 | 0.001 | | | | Precision |
| | | 60-310 | 0.01 | 0.01 | | | | |
| PJ360/49 ^{1,2} | III | 0-60 g | | 0.1 | | | | Moisture |
| | | 60-310 g | | 0.1 | | | | |
| PJ360/49 ^{1,2} | III | 0-60 g | | 0.5 | | | | General |
| | | 60-310 g | | 0.5 | | | | |
| PJ400/49 ¹ | II | 410 | 0.01 | 0.01 | | | | Precision |
| PJ400/49 ¹ | III | 410 | | 0.1 | | | | Moisture |
| PJ400/49 ¹ | III | 410 | | 0.5 | | | | General |
| PJ600G | II | 610 g | | 0.1 | 392 dwt | | 0.1 | |
| PJ600/49 | II | 610 g | 0.1 | 0.1 | | | | |
| PJ600/49 | III | 610 g | | 0.1 | | | | Moisture |
| PJ1220/49 ² | II | 0-2000 g | 1 | 0.1 | | | | |
| | | 2000-12000 g | 1 | 1 | | | | |

Mettler Instrument Corporation
Jeweler's Balance/Postal/Grain Test Scales
Model: PJ/CJ Series

Models: (cont.)

| | | Capacities and Primary Weight Units | | | Capacities and Secondary Weight Units | | | USDA/FGIS Grain Test Scales ¹ |
|--------------------------|-------|----------------------------------------|------|------|------------------------------------------|-----|------|------------------------------------------------|
| Model | Class | Capacity | e | d | Capacity | e | d | Category |
| PJ3000/49 | II | 3100 g | 0.1 | 0.01 | | | | |
| PJ3000/49 ¹ | III | 3100 g | | 0.1 | | | | Moisture |
| PJ3000/49 ¹ | III | 3100 g | | 0.5 | | | | General |
| PJ3600G | II | 0-600 g | 0.1 | 0.01 | 385.8 dwt | 0.1 | 0.01 | |
| | | 600-3100 g | 0.1 | 0.1 | 385.8-1993 dwt | 0.1 | 0.1 | |
| PJ3600/49 ² | II | 0-600 g | 0.1 | 0.01 | 385.8 dwt | 0.1 | 0.01 | |
| | | 600-3100 g | 0.1 | 0.1 | 385.8-1933 dwt | 0.1 | 0.1 | |
| PJ3600/49 ^{1,2} | III | 0-600 g | | 0.1 | | | | Moisture |
| | III | 600-3100 g | | | | | | |
| PJ3600/49 ^{1,2} | III | 0-600 g | | 0.5 | | | | General |
| | III | 600-3100 g | | | | | | |
| PJ4000G | II | 4100 g | | 0.1 | 2636 dwt | | 0.1 | |
| PJ4000/49 | II | 4100 g | 0.1 | 0.1 | | | | |
| PJ4000/49 ¹ | III | 4100 g | | 0.1 | | | | Moisture |
| PJ4000/49 ¹ | III | 4100 g | | 0.5 | | | | General |
| PJ4000GP ³ | II | 144 oz | 0.01 | 0.01 | | | | |
| PJ6000G | II | 6000 g | 1 | 0.1 | 3858 dwt | 1 | 0.1 | |
| PJ6000/49 | II | 6000 g | 1 | 0.1 | 3858 dwt | 1 | 0.1 | |

¹ Federal Grain Inspection Service Scales have specific requirements for grain test scales used for official USDA/FGIS weighing.

² DeltaRange balances have constant verification scale divisions, e, but the scale division sizes change within the weighing range of the balance. Because e is constant, the DeltaRange balances are not multi-range scales.

³ Made to U.S. Postal Service specifications as a postal scale.

Mettler Instrument Corporation
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Model: PJ/CJ Series

Identification: The identification badge is located on the right side of the balance.

Sealing: A wire security seal can be threaded through two screws with holes. One screw is on the left side of the balance and the other is on the bottom of the scale. As an alternative, the balance may be sealed with an adhesive label that is destroyed in an attempt to remove it. The pressure sensitive seal must be placed in the same location as the lead and wire seal.

Operation: A jumper is inside the balance and must be in a specific position to activate the calibration mode. Devices used in applications falling under weights and measures enforcement should have the jumper in the position that deactivates the keyboard calibration mode.

Operational parameters are selected by pressing the zero bar and stepping through the menu of features established at the time of calibration.

Test Conditions: This certificate supersedes Certificate No. 87-004A4 and is issued to clearly indicate that **all** models listed in this certificate comply with Handbook 44. Consolidation of all previous revisions of the certificate, as performed in revision 87-004A4, inadvertently indicated that PJXXXXG and PJXXXXGP models did not comply with Handbook 44; however, they do comply. Test Conditions for the previous two revisions are listed below.

Certificate of Conformance No. 87-004A4: This certificate is issued to consolidate and supersede all previous revisions of Certificate of Conformance No. 87-004. Test Conditions for 87-004A3 are listed below.

Certificate of Conformance No. 87-004A3: This certificate supersedes Certificate No. 87-004A2 and is issued to add a PJ4000GP optional model for postal service applications.

The electronics and weighing elements of this series are identical to those of the Mettler PJXXX/49 balances (CC No. 87-004), the PM balances (CC No. 87-001), and the PE balances (CC No. 85-092). The capacities of the balances listed in this certificate fall within the range of capacities that have been previously tested. A PM balance was tested for compliance with the Influence factors requirements. This certificate is issued based upon the evaluation of the PJXXX/49 and the PM balances and information provided by the manufacturer.

Type Evaluation Criteria Used: NIST Handbook 44, 1994 Edition

Tested By: H. Oppermann (NIST)

Update Reviewed by: R. Whipple (NIST)